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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,718	02/11/2004	Gil-Yong Park	5000-1-513	2825

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CHA & REITER, LLC
210 ROUTE 4 EAST STE 103
PARAMUS, NJ 07652

EXAMINER	
TAYONG, HELENE E	
ART UNIT	PAPER NUMBER
2611	
MAIL DATE	DELIVERY MODE
11/12/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/776,718	PARK ET AL.	
	Examiner	Art Unit	
	HELENE TAYONG	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed on 8/2/08.

Claims 1, 4 and 6 are independent claims. Claim 6 has been amended in accordance with the Examiner's suggestion. Claims I-6 are pending in this application and have been considered below.

Response to Arguments

2. Applicants arguments regarding the rejection of claims 1-3 stand rejected under 35 U.S.C § 103(a) as allegedly being obvious over Masashi et at. (U.S. 5,574,714) ("Masashi") in view of Orban (U.S. 4,208,548), claims 4, 5 and 6 under 35 U.S.C.§I03(a) as allegedly being obvious over Masashi in view of Orban and further in view of Ota et aL (U.S. 5,430,766) ("Ota") and claim 6 rejected as allegedly being obvious Masashi in view of Orban and further in view of Kennedy et al. (U.S. 4,213,129) ("Kennedy") have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Masasbi (U.S. 5,574,714).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. A clipper that **clips the output signal of the variable gain amplifier only when the output signal is lower than said present signal Vcut, was not described in the specification. The clipper can only clip the output signal of the variable gain amplifier when the output signal is higher than the present signal. One of ordinary skill in the art would not have been able to clip the signal when it is already lower that present signal.**

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being obvious over Masashi et al. (5574714).

(1) with regards to claim 1;

Masashi et al. discloses in (fig. 3) an automatic gain control (AGC) (signal level adjustment unit for adjusting levels of EFM signals read from an optical disk (col. 2, lines 61-67 and col.3, lines 1-5), comprising:

a variable gain amplifier(10) for variably amplifying an input signal (EFM signal) according to an AGC adjustment control signal (signal for 14) (col.3, lines 6-10);

a peak value detecting circuit (12) for detecting a peak value from an output signal of the level shifter (11) and for generating the AGC adjustment control signal (output from 14) for controlling a gain of the variable gain amplifier (10) (col. 3, lines 59-67 and col. 4, lines 17).

Masashi et al. discloses all of the subject matter discussed above, but for explicitly teaching

(a) a clipper coupled to an output terminal of the variable gain amplifier for comparing an output signal of the variable gain amplifier with a preset signal V_{cut} and for outputting a signal difference only when the output signal of the variable gain amplifier is higher than or equal to the preset signal V_{cut} in amplitude and

(b) an exponential amplifier for exponentially amplifying an output signal of the clipper.

(i) with regards to item (a) above;

However, Masashi et al. discloses in (fig. 3) a signal level adjusting unit (11) that includes a comparator (16), a bottom value detector that detects the bottom value of the output signal of the level shift circuit. The bottom value is compared with a reference value d and a difference between the compared values is issued to the shift circuit. The comparator (16) makes a comparison with a Vref signal and outputs a signal at terminal (9). (col. 3, lines 22-31).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have realized that the comparator as taught by Masashi et al are interchangeable.

(ii) with regards to item (b) above;

However, Masashi et al. discloses in (fig. 3) a first circuit that includes an amplifier (16) and resistors 17 and 18 with resistance values R1 and R2. The gain depends upon the resistance values (col. 3, lines 48-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have realized that the amplifier as taught by Masashi et al could have been used for exponentially amplifying an output signal of the clipper.

Allowable Subject Matter

7. Claims 4, 5 and 6 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art of record does not disclose wherein the clipper and the exponential amplifier comprise:

a first transistor having tag a base receiving an output signal of the variable gain amplifier, a collector connected in common to a supply voltage Vcc on one end of a first resistor, and an emitter connected in common to an emitter of a second transistor and one end of a second resistor; a second transistor having a base receiving a specific voltage value corresponding to a preset clipping value, a collector connected to another end of the first resistor, and an emitter connected in common to the emitter of the first transistor and one end of the second resistor; the first resistor having one end

connected in common to the collector of the first transistor and the supply voltage Vcc, and another end connected to the collector of the second transistor; and the second resistor baying one end connected in common to the emitter of the first transistor and the emitter of the second transistor, and another end grounded.

8. Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The following is an examiner's statement of reasons for allowance: The prior art of record does not disclose a voltage controlled variable resistor (VCVR) coupled in parallel to the peak holder for creating a current leakage path and for preventing overcurrent from flowing in the peak holder when the output signal of the exponential amplifier is larger than or equal to a preset threshold and wherein the peak holder comprises: a peak value detector for converting a DC (Direct Current) level of an output signal of the exponential amplifier so that the DC level of the output signal of the exponential amplifier is matched to a DC level of the peak holder; and a peak value keeper for keeping a peak value of the output signal of the exponential amplifier and for generating the AGC adjustment control signal to control a gain of the variable gain amplifier from the kept peak value.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamazaki (US 6597245) discloses a preamplifier for use in an optical signal receiver.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELENE TAYONG whose telephone number is (571)270-1675. The examiner can normally be reached on Monday-Friday 8:00 am to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Liu Shuwang can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Helene Tayong/
Examiner, Art Unit 2611

October 30, 2008
/Shuwang Liu/
Supervisory Patent Examiner, Art Unit 2611